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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,194	11/19/2001	Masafumi Yugami	P67318US0	8120

7590

07/19/2004

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EXAMINER

YENKE, BRIAN P

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,194

Applicant(s)

YUGAMI ET AL.

Examiner

BRIAN P. YENKE

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 27-31 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-25 and 27-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Auld et al., US 6,327,000 in view of Lim, US 5,444,491.

In considering claims 1, 3 and 8, 10, 12, 14, 19, 21-22, 24-25

a) the claimed a video signal source... is met by tuner 123 which receives analog signals and digital tuner 125 which receives digital signals, where the analog signal includes NTSC which includes 480 effective interlaced lines and the HDTV signal includes 1080 effective interlaced lines (Fig 1).

b) the claimed a video signal processor is met by integrated graphics and video processor 110 which receives both the NTSC and digital signals via receivers 122 and 124 respectively, and converts the received signals to meet that of the destination display format. The destination format may be (Fig 15A/B) high or low resolution progressive and low or high resolution interlaced in order to provide a combined display as shown in Fig 16a.

Art Unit: 2614

However, Auld does not explicitly recite the third signal having 1440 effective scanning lines.

Auld does disclose the receipt/processing of PC signals, TV signals including HDTV, NTSC, PAL and MPEG-2, where it is known that within these various types of signals, the number of scanning lines varies.

The examiner incorporates Lim, which discloses that a progressive signal might have 1440 scanning lines.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Auld which discloses the reception of various types of signals including PC and TV (standard and high definition) to receive/process and display signals have a variety of formats, including a signal having 1440 scan lines, in order to provide the viewer an adaptable/versatile receiver/display system.

In considering claims 2, 9, 13, 20,23
Auld discloses that digital TV receiver 124 receives digital data according to the MPEG standards, including MPEG-2, MPEG-4 and MPEG-7, thus the MPEG standards include the progressive signal having 480 effective scanning lines.

In considering claim 4-6,
The claimed a progressive to interlace converter is met where Auld discloses that a progressive signal (HDTV or PC) signal can be received and displayed on a standard definition 132 interlaced display or encoded for use on a TV/VCR (via 134).

In considering claims 7, 11, 15

Art Unit: 2614

a) *the claimed an interlace to progressive converter* is met by deinterlacer 430 (Fig 4).

Regarding the 6/2, 2/1 and 4/3 converters neither Auld nor Lim disclose the exact ratios. However, Auld does disclose that images from any input source can be scaled and processed appropriately to be displayed on a particular display (high or standard definition) in a PIP mode (col 17, line 55-63).

Therefore, although neither Auld nor Lim disclose the 6/2, 2/1 and 4/3 converters, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify, Auld and Lim which disclose receiving images from any input source which may be displayed on different display formats, would convert the received image formats according to the desired display format.

In considering claims 16-18,

As stated above with respect to claim 1, Auld discloses the reception of images from any input source which may be displayed on different display formats, Auld discloses the reception of PC, and TV (including standard and high definition), where the signals also include MPEG-2/4/7, thus Auld can received 15.75 Khz (480I), 33.75 Khz (1080I).

Regarding the CRT, deflector and PLL circuitry for a 45 Khz (720p) display. Auld discloses the use of a TV monitor 1600 which may be standard or high definition, also Auld discloses a video encoder 134.

Neither Auld nor Lim explicitly recite the conventional features of a CRT display which includes a deflector and PLL circuitry which is used to drive the display based upon the video and sync information.

Art Unit: 2614

Thus the examiner takes "OFFICIAL NOTICE" regarding a CRT display which includes a deflector and PLL circuitry. Regarding the 45 Khz range, since Auld discloses MPEG-2/4/7 in the reception and display of video information, and since 720 P (e.g. 45 Khz) is included in the MPEG standards, this frequency range would included.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Auld and Lim which disclose the reception of multiple types of images signals which may be converted displayed on various displays, by incorporating conventional CRT circuitry including a deflector and a phase lock loop in order to provide the viewer the ability to view the received signals on a CRT if available.

In considering claims 27-31,

Auld discloses a system which receives images from any source including TV stations, satellite transmission, cable TV, internet, video cameras, computer graphics etc... The original display resolutions and scanning mode (progressive or interlaced) of these source may or may not be the same, nor the same as monitor 1600. Auld discloses the reception/processing of MPEG-2/4/7 signals which includes, 4:3 aspect ratio of 480 interlaced, 16:9 aspect ratio, 1080 interlaced, 720 progressive and 480 progressive. Auld also discloses any combination of display arrangements is possible (col 17, line 25-36 and col 17, line 55-63).

Regarding the 1440 lines, please refer to rejection/motivation of claim 1 above.

Art Unit: 2614

Allowable Subject Matter

2. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is

Art Unit: 2614

(703)305-HELP.

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800-PTO-9199 or 703-308-HELP

(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

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General information brochures can also be obtained in person from the Patent Search Room located in Crystal Plaza 3, Room 1A03, 2021 South Clark Place, Arlington, VA 22202.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and

Art Unit: 2614

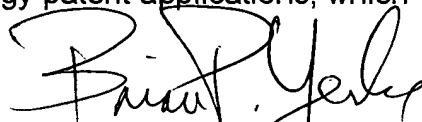
submit information and applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS).

PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



B.P.Y.

11 July 2004



BRIAN P. YENKE
Primary Examiner
Art Unit 2614